



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/697,529 | 10/30/2003 | Peter Jahn | Bayer 10244.2-WCG | 8156 |
| 27386 | 7590 | 06/22/2005 | EXAMINER | |
| NORRIS, MCLAUGHLIN & MARCUS, P.A. 875 THIRD AVE 18TH FLOOR NEW YORK, NY 10022 | | | KOCZO JR, MICHAEL | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3746 | |

DATE MAILED: 06/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

C

| | | | |
|------------------------------|--------------------------------------|-----------------------------------|--|
| Office Action Summary | Application No. 10/697,529 | Applicant(s) JAHN ET AL | |
| | Examiner Michael Kocz, Jr. | Art Unit 3746 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-20,22 and 24-29 is/are pending in the application.
- 4a) Of the above claim(s) 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-20 and 24-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's arguments filed May 17, 2005 have been fully considered but they are not persuasive.

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Note that in the specification the detailed description of the invention precedes the brief description of the several views of the drawings.

Claim Rejections - 35 USC § 112

Claims 12 and 13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 12 and 13 recite the combination of a pump and a distributor valve as shown in figure 5. The pump structure and the valve structure are not disclosed as being usable together. That is, there is no disclosure of a pump having a valve as claimed. Since there is no disclosure of how to use the claimed multi-way distributor valve in combination with the diaphragm pump, it would require undue experimentation by one of ordinary skill in the art to know how to make and use the device.

Applicant argues that claims 12 and 13 “do not recite a pump and a valve; they merely recite a distributor valve having the structure of the pump head of claim 1.” This is not persuasive. Claim 1 makes several references to “the pump” and “the pumping chamber”. That is, claim 1 recites structure for performing a pumping function. According to 35 U.S.C. 112, fourth paragraph, a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers. Therefore, claims 12 and 13 in effect are a combination with claim 1.

Art Unit: 3746

Claims 1, 2, 4 to 20 and 24 to 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 6, it is not clear what is the difference between a spherical segment and a spherical zone. Applicant's definitions of these terms in the remarks has been noted. These definitions are still unclear since it is not understood what is the difference between "cut off of the sphere" and "cut out of the sphere". Furthermore, it is not seen why a "zone" would be limited to a slice. There are also no definitions of these terms in the specification.

In claim 1, line 14, there is no antecedent basis for "the pump".

Claims 12 and 13 are indefinite because they purports to claim a "valve" and recite valve structure, yet the body of each claim incorporates pump structure. This raises a question regarding the scope of the claims. That is, is applicant intending to claim a valve per se, or a pump. It is to be noted that the valve and pump are described in the specification as structurally and functionally distinct.

Claim Rejections - 35 USC § 103

Claims 1 to 6, 8, 9, 11, 16, 17, 18 and 26 to 29, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Nystroem (US 3,741,687) in view of either of Goetgheluck (FR 1,457,419) or Carver (FR 1,177,065). Figure 5 of Nystroem shows three plates separated by two diaphragms 54 and 100 to form a pumping chamber 56 and two shut-off chambers 60 and 62. Spaces 74, 76 and 78 are control spaces. See figure 3 which shows a groove 64 in the product space 56. However, Nystroem does not disclose an axially moving disk

Art Unit: 3746

in the control space 74 for reducing or increasing the maximum diaphragm travel in the pumping chamber. Each of Goetgheluck or Carver disclose a diaphragm pump having screw means 13 and 22 in the control space, respectively, for reducing or increasing the maximum diaphragm travel in the pumping chamber for controlling the amount of fluid which is pumped, which control renders the pump more versatile. In view of these teachings, it would have been obvious to provide the pump of Nystroem with an axially moving disk in the control space 74.

Applicant argues that “a groove is provided in the product space 231 which runs from the vertex of this product space to the outlet orifice of channel 209. This is nowhere taught or suggested by any combination of the cited references”. Attention is again directed to figure 3 of Nystroem which shows a groove 64 in the product space 56 which runs from the vertex of the product space to an outlet orifice 66, 68.

Regarding claims 26 to 28, the deformation of a diaphragm of Nystroem is a function of the pressure of the fluid in a control space. Therefore the structure of Nystroem is inherently capable of being limited to the degrees as recited in these claims by control of the fluid pressure in a control space. Furthermore, regarding claims 26 to 29, one of ordinary skill in the art would design the product and control spaces so as to pump or meter a desired quantity of fluid per deformation. No unobvious or unexpected result is obtained by the claimed maximum deformations.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nystroem (US 3,741,687) in view of either of Goetgheluck (FR 1,457,419) or Carver (FR 1,177,065), as applied to claim 5 above, and further in view of Meloche et al. (US 6,190,136). Meloche et al. teach the use of elastomeric material for the diaphragm because of its flexibility (col. 3, para. 2). In view

Art Unit: 3746

of this teaching, it would have been obvious to use elastomeric material as the material of the diaphragm of Nystroem, as previously modified.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 4 to 20, 24 and 25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 to 25 of copending Application No. 10/600,299. Although the conflicting claims are not identical, they are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

Claims 7, 14, 15, 19, 20 and 25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

This application contains claim 22 drawn to an invention nonelected with traverse. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

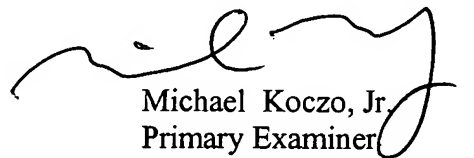
Any inquiry relating to patent applications in general should be directed to the Patent Assistance Center at 1-800-786-9199.

Art Unit: 3746

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Koczo, Jr. whose telephone number is 571-272-4830. The examiner can normally be reached on M-Th; 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy S. Thorpe can be reached at 571-272-4444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael Koczo, Jr.
Primary Examiner
Art Unit 3746